

IN THE CLAIMS:

1. (currently amended) A system of manufacturing to control the customized configuration of an implantable medical device (IMD), comprising:
 - a web-enabled information network;
 - a storage device capable of receiving information from the information network to receive patient-specific data; and
 - a processing circuit coupled to the storage device to select components to be integrated in the initial manufacturing of the IMD based on the patient-specific data.
2. (Previously presented) The system of Claim 1, and further including software components loaded into the storage device, the software components being selected by the processing circuit as one or more of the components selected for use in the configuration of the IMD.
3. (currently amended) The system of Claim 2, wherein the software components are means selected from the group consisting of software and/or firmware-implemented digital signal processing processes, filters, and signal differentiation processes.
4. (Previously presented) The system of Claim 3, wherein the signal differentiation processes include analyzing means for analyzing cardiac waveforms, wherein said waveforms are selected from the group consisting of poly-morphic ventricular tachycardia, poly-morphic ventricular fibrillation, mono-morphic ventricular tachycardia, mono-morphic ventricular fibrillation, atrial flutter, atrial tachyarrhythmia, atrial fibrillation, premature atrial contractions, premature ventricular contractions, sinus tachycardia, left bundle-branch block, right bundle branch block, antegrade p-waves, and retrograde p-waves.

5. (Previously presented) The system of Claim 1, wherein the processing circuit includes parameter selection means for selecting predetermined parameters to be downloaded into the IMD.
6. (Original) The system of Claim 5, wherein the predetermined parameters are selected from the group consisting of a patient identifier, a device type, model number, a serial number, a name of an implanting physician, a name of a sales representative, a name of an implanting institution, a date of implant, a customized patient alarm, and a customized message in a selected language.
7. (currently amended) The system of Claim 1, and further including a manufacturing inventory control system coupled to receive information indicative of the selected components, wherein the received information is used during manufacture of the IMD.
8. (Original) The system of Claim 7, and further including a testing system coupled to receive information indicative of the selected components, wherein the received information is used in testing a manufactured IMD.
9. (Original) The system of Claim 8, wherein the received information includes signals generated from the patient-specific data applied to inputs of the IMD during the testing of the manufactured IMD.
10. (Original) The system of Claim 9, wherein the processing circuit includes means for monitoring status of an IMD being manufactured and tested, and further including means for transferring the status via the web-enabled Information network to a remote system.
11. (Original) The system of Claim 1, wherein the processing circuit includes means for selecting hardware components to be used during manufacture of the IMD based on the patient-specific data.

12. (Original) The system of Claim 1, and further including means for monitoring inventory levels of the selected components and for ordering additional ones of the selected components when the inventory levels are within a predetermined range.

13. (Original) The system of Claim 1, and further including means for receiving an order to manufacture the IMD via the web-enabled information network.

14. (Original) The system of Claim 13, and further including means for automatically shipping a manufactured IMD in response to the order.

15. (Original) The system of Claim 1, wherein the processing circuit is integrated within a programmer, and further comprising a telemetry system capable of downloading the ones of the selected components to the IMD.

16. (Original) The system of Claim 1, and further including a programmer coupled to the storage device to download ones of the selected components to the IMD.

17. (currently amended) A method of utilizing an information network coupled to an inventory management system to initially manufacture an implantable medical device (IMD), comprising the steps of:

a.) transferring a customized order for the IMD from a remote site to the inventory management system via the information network; and

b.) utilizing the inventory management system to select an original user-specific configuration of the IMD based on the customized order, the original user-specific configuration to be used to initially manufacture the IMD.

18. (Original) The method of Claim 17, wherein selecting the configuration includes selecting the operating parameters of the IMD.

19. (Original) The method of Claim 17, wherein selecting the configuration includes selecting hardware components to be used in the manufacture of the IMD.
20. (Original) The method of Claim 19, and further including the steps of: determining whether the selected hardware components are available in inventory; and automatically ordering components that are not available in inventory.
21. (Original) The method of Claim 17, wherein selecting the configuration includes selecting one or more software algorithms to be used to control operations of the IMD.
22. (Original) The method of Claim 21, wherein the customized order includes physiological data, and further including the step of modifying a selected software algorithm based on the physiological data.
23. (Original) The method of Claim 21, wherein selecting one or more software algorithms includes selecting from software and/or firmware-implemented digital signal processing algorithms, filters, and signal differentiation algorithms.
24. (Original) The method of Claim 17, wherein the customized order includes predetermined parameters selected from the group consisting of a patient identifier, a device type, model number, a serial number, a name of an implanting physician, a name of a sales representative, a name of an implanting institution, a date of implant, a customized patient alarm, and a customized message in a selected language.

25. (Original) The method of Claim 17, and further including the step of using the selected configuration to manufacture the IMD.
26. (Original) The method of Claim 25, wherein the inventory management system is coupled to a manufacturing system, and further including the step of transferring the selected configuration to the manufacturing system for use in manufacturing the IMD.
27. (Original) The method of Claim 25, and further including the step of using the selected configuration to test a manufactured IMD.
28. (Original) The method of Claim 27, wherein the inventory management system is coupled to a test system, and further including the step of transferring the selected configuration to the test system for use in testing a manufactured IMD.
29. (Original) The method of Claim 27, wherein the customized order includes physiological data obtained from a patient, and further including the step of providing the physiological data to interfaces of the manufactured IMD to test the manufactured IMD.
30. (Original) The method of Claim 25, and further including the step of monitoring status of an IMD while the IMD is being manufactured.
31. (Original) The method of Claim 30, and further including transferring the status to the remote site.
32. (Original) The method of Claim 25, and further including automatically shipping a manufactured IMD in response to the customized order.